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SCHOOL FOOD SERVICE SANITATION

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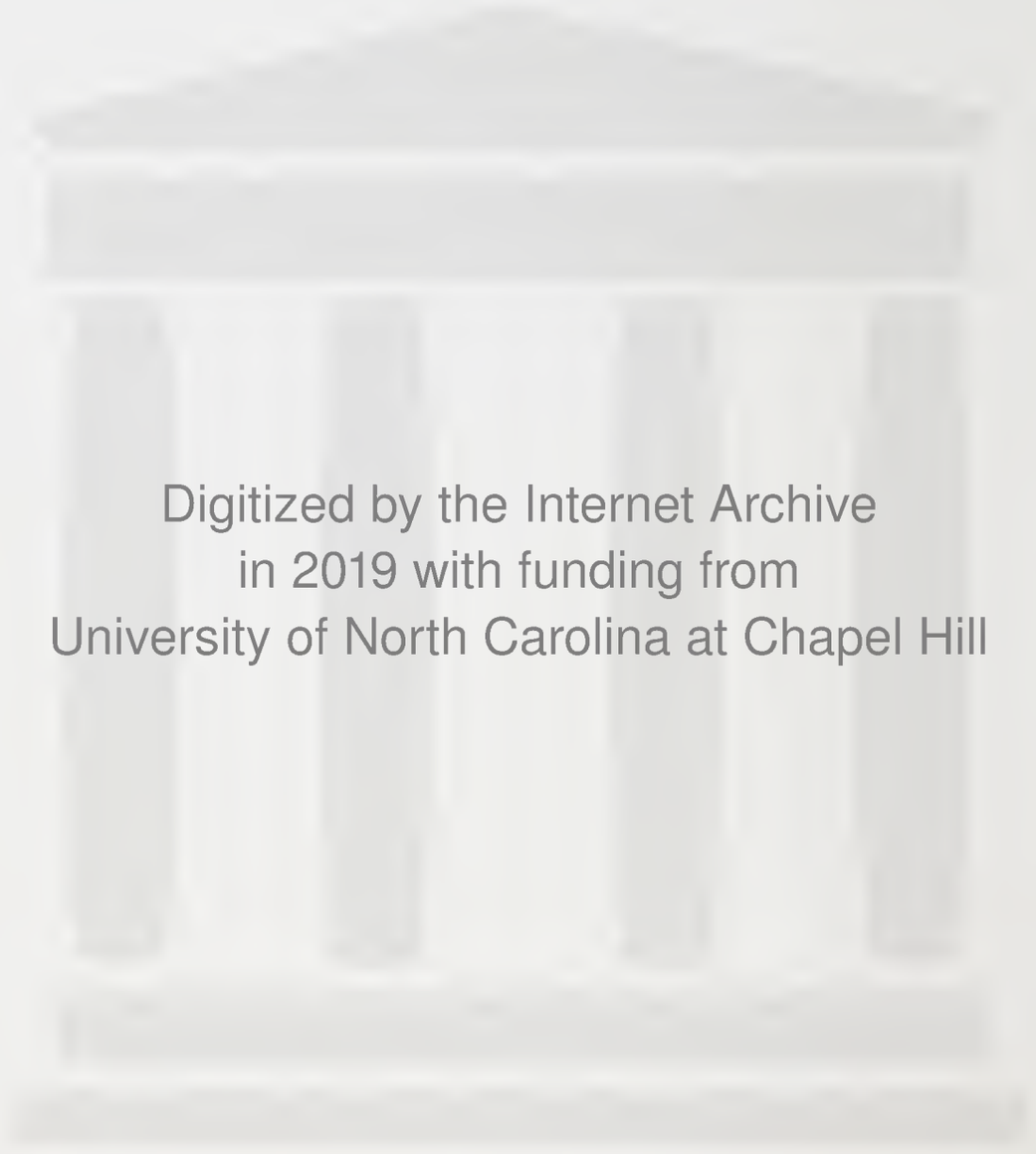
NORTH CAROLINA

School Food Service

SANITATION

MANUAL



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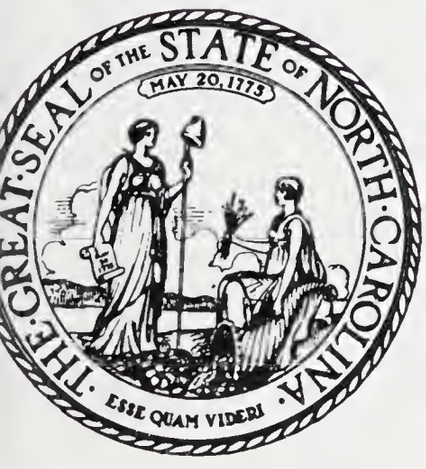
SCHOOL FOOD SERVICE SANITATION

A Manual for School Food Service Employees



prepared cooperatively by

Sanitary Engineering Division
North Carolina State Board of Health
and
School Food Service
State Department of Public Instruction

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CONTENTS

Chapter I

The Nature of Germs and How to Fight Them 5
Diseases Caused by Germs and Poisons in Food 5
How Can We Fight Germs? 7

Chapter II

The Food Service Employee 9
Hygienic Practices and Precautions 9
Necessary Personal Hygiene Facilities 11
Sanitary Work Habits 12
Safety Practices 12

Chapter III

Foodhandling and Sanitation Practices 15
Food Purchasing and Receiving 15
Food Storage 16
Food Examination and Preparation 19
Food Serving 21
Dishwashing 23
Refuse Disposal 28
Pest Control 30
Cleaning Schedule 32
Outlines for Built-In Sanitation 34

Chapter IV

The Role of the Sanitarian 35
Advisory Services 35
Inspection and Sanitation Rating 36

Appendix 38

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FOREWORD

The State Board of Health and the State Department of Public Instruction share a vital interest in the health and welfare of the children and youth of North Carolina.

The technicalities involved in food service sanitation cover a broad field which includes many specializations; however, an understanding of the basic principles of sanitation is indispensable to all people engaged in food service activities.

School food service personnel are charged with the responsibility of providing nutritionally adequate, palatable, and safe food to their clientele. To do this requires maintaining the highest possible sanitation standards.

This publication is intended to be used as a teaching text as well as a reference manual in promoting better understanding and practice of the principles of sanitation in the School Food Service program.

We wish to acknowledge the work done by John Andrews, W. Murray Linker, Jr., and Don F. Ashton of the State Board of Health staff, and Lois Brown, Kathryn Woodard, O. L. Searing, and James E. Jackman of the State Department of Public Instruction, who assisted John D. Wray of the State Board of Health staff in the preparation of this manual.

Jacob Koomen

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Chas. F. Carroll

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State Superintendent of
Public Instruction

April 1966

PREFACE

School Food Service personnel have the responsibility not only to see that school lunches are prepared on time, but also to insure that the food is nutritious, attractive, and safe.

It is their responsibility to make sure that the lunches served will not cause sickness. Illnesses with effects ranging from slight discomfort to death may result when foods are not adequately protected from contamination or are stored at temperatures favorable to germ growth.

All too often, outbreaks of diseases are caused by *human failures in routine procedures.* The Regulations of the North Carolina State Board of Health, the layout, the equipment, and other factors are important; but it is the *people who prepare the food* who must protect the student against food-borne disease.

Over the years, much progress has been made in reducing the number of disease outbreaks transmitted by impure water and milk; still, many disease outbreaks traceable to other foods continue to occur.

Foodhandlers should know the basic principles of food sanitation and be acquainted with the correct practices, procedures and the dangers in handling food. Understanding the role of health officials will contribute to a good working relationship as well as to improving food service programs.

The purposes of this manual are to provide information on some of the basic concepts of sanitation, to furnish a few useful guidelines that will help you serve safer meals, and to explain the role of health officials in food service sanitation.

I THE NATURE OF GERMS AND HOW TO FIGHT THEM

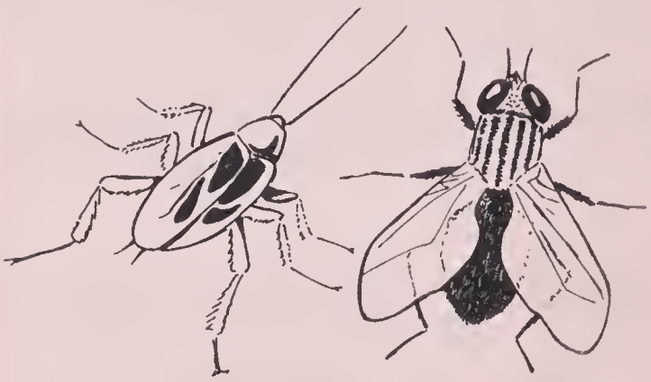
DISEASES CAUSED BY GERMS IN FOOD

Germs (microorganisms) are very small living things, so small they cannot be seen with the naked eye. Not all germs are harmful; some even help us and are useful in stimulating plant growth (fixing nitrogen) and in making cheese, vinegar, buttermilk, etc. It is well to remember that life on this earth would cease to exist if it were not for germs. Unfortunately, some germs are dangerous and cause disease.

Many common food-borne diseases are caused by the following germs:

GERM	WHERE IT IS FOUND	DISEASE CAUSED
Staphylococcus	In food touched by persons with sores or boils	Food intoxication
Salmonella	In food touched by unwashed hands, or in improperly cooked meat (especially poultry), and eggs	Food infections, including typhoid fever
Streptococcus	In milk purchased from unsafe source	Septic sore throat & scarlet fever

GERM	WHERE IT IS FOUND	DISEASE CAUSED
C. Botulinum	In improperly canned or sealed foods; manufactures poison	Botulism
C. Perfringens	In food contaminated by flies, unwashed hands of carrier and in insufficiently cooked meats.	Food intoxication
Shigella	In food contaminated by flies, unwashed hands and improperly washed dishes or silverware.	Bacillary dysentery
Trichinella Spiralis	In pork not thoroughly cooked	Trichinosis
Viruses	In foods not completely cooked and in foods handled by carrier. Much is yet to be learned about viruses.	Infectious hepatitis & other viral diseases



Other germs that are not quite so common sometimes cause brucellosis, bacillus cerus food infection, cholera, diphtheria, coli infections, paratyphoid, tuberculosis, and tularemia.

Note on Chemical Poisons

Illness can also be caused by chemicals accidentally added to food. This can happen when insecticides, pesticides and other poisons or sprays are improperly handled or stored. The ever-increasing use of insecticides and other chemicals in agriculture has led to increased chances of contamination of fresh vegetables, in particular, by chemical residues. Certain foods, if stored or cooked in galvanized or other unapproved metal containers, may become contaminated by poisonous metals.

HOW CAN WE FIGHT GERMS?

To survive and to multiply, germs, like other living creatures, must have food, moderate temperatures, and sufficient time. When these conditions are favorable, germs will multiply very rapidly.

In fighting germs, we must deny them these three necessary conditions. There are three basic rules to follow:

1. **Don't feed them.**

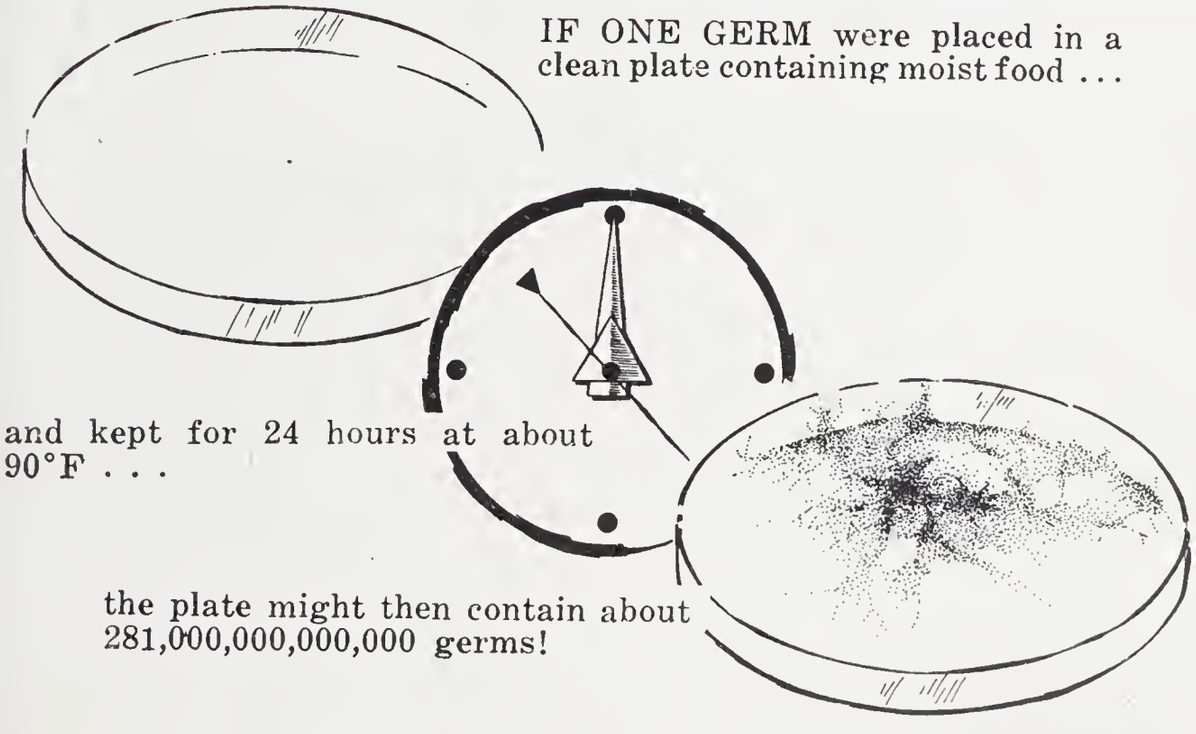
There is no food for germs on clean, dry surfaces; so, we find very few germs on such surfaces. A clean environment is the germ's worst enemy. We can keep germs from getting into food by practicing personal hygiene, sanitary work habits, and sanitation procedures to keep utensils and equipment clean.

2. **Keep food at high or low temperatures (above 140°F or below 45°F).**

Germs multiply rapidly in food kept at room temperature. At temperatures below 45°, germs multiply slowly or not at all. Temperatures above 140° kill most germs.

3. **Don't give germs time to multiply.**

The less time food is kept at a moderate temperature, the better. Of course, food has to be worked with at room temperature; but after you have finished preparing any food, it is especially important to cool it or to heat it to a safe temperature as rapidly as possible.


IF ONE GERM were placed in a clean plate containing moist food . . .
and kept for 24 hours at about 90°F . . .
the plate might then contain about 281,000,000,000,000 germs!

Simple Hairdo

Shampoo Regularly

Hairnet Covering
ALL Hair

Minimum Amount
of Makeup

Clean Teeth

Fingernails Clean
& Short

No Nail Polish

No Jewelry Except
Plain Wedding Band

Bathe Daily

Use Deodorant Daily

Hose Free From Runs

Comfortable, Clean
Low-Heeled Shoes

II THE FOOD SERVICE EMPLOYEE

HYGIENIC PRACTICES AND PRECAUTIONS

Many food-borne disease outbreaks are traced to humans who handle and prepare food. One of the chief sources of food contamination is discharges from the human body (intestinal tract, nose, throat, skin eruptions and infections).

The school food service manager is responsible for making sure that a health certificate is on file for each employee and for seeing that employees who have contracted contagious diseases do not engage in food preparation and service.

All school food service employees should strive in every possible way to avoid contaminating food and drink by practicing the highest standards of personal hygiene. This involves attention to proper on-the-job attire as well as following the basic rules of personal cleanliness.

Germs are most frequently transmitted to food by hands. In order to handle, prepare, and serve food with minimum contamination, *our hands must be clean.* A most important rule of personal hygiene for those engaged in preparing and serving food, is—

WASH HANDS FREQUENTLY

Before

- Beginning work
- Any job where hands must be placed in food
- Serving food
- Handling clean dishes and utensils

After

- Each visit to the toilet
- Coughing, sneezing, or using a handkerchief
- Fingering face or hair
- Handling soiled dishes and utensils
- Handling money, tickets, telephone or other soiled articles
- Handling poisons or garbage

Since even clean hands can transmit harmful germs to food, there is another important rule to be observed:

HANDLE FOOD AS LITTLE AS POSSIBLE

- **Use appropriate utensils for preparing and serving food—not the hands.**
- **Use proper tools for mixing—never the hands!**

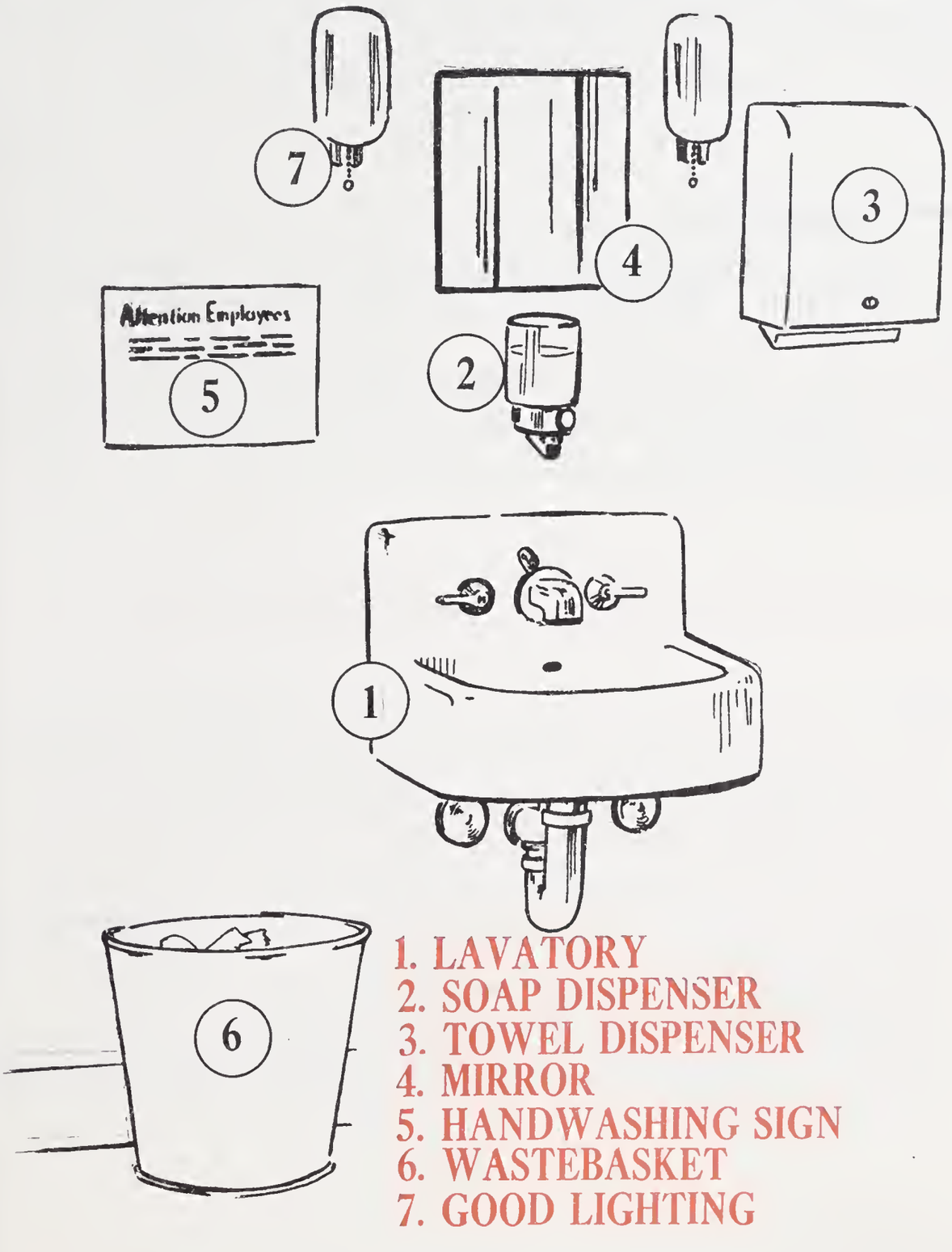
Other important hygienic precautions to minimize contamination of food are the following:

- **Stay at home when you are sick.**
- **Protect food, dishes, and utensils from coughs and sneezes.**
- **Confine smoking to a designated area away from where food is being prepared or served.**
- **Use combs, make-up kits, nail files, etc. only in the rest rooms.**

NECESSARY PERSONAL HYGIENE FACILITIES

Without suitable facilities, it is difficult or impossible for school food service employees to maintain proper personal hygiene. Facilities which should be provided include—

- A lavatory, with combination supply faucet, conveniently located in the food service area.
- Hot and cold water, soap and sanitary towel holder.
- Handwashing signs or pictures.
- Adequate toilet facilities.
- Dressing room and locker facilities.



SANITARY WORK HABITS

There are a number of other sanitary practices which should become just as habitual for school food service personnel as washing the hands frequently:

- **Handle utensils in a sanitary manner—**
  Flatware by the handles
  Bowls by the bases
  Plates by the rims
- **Keep all work surfaces clean—never lean or sit on work surfaces.**
- **Use a clean spoon for tasting—wash it thoroughly and promptly after each use.**
- **Use mechanical equipment for mixing, chopping, and dicing.**
- **Use a rubber spatula to scrape food from bowls, beaters, and other utensils.**
- **Cover all exposed food and dishes before sweeping floors.**

SAFETY PRACTICES

Accidents can be painful and expensive. Plan a safety program, stressing preventive measures.

A CO_2 fire extinguisher, blanket and first aid kit should be standard equipment in each school food service department. Employees should be instructed in the use of each.

FOLLOW THESE SAFETY RULES TO PREVENT—

Cuts

- Wash all sharp tools separately. Do not leave them in dishwater.
- Use a chopping board for dicing, mincing and cutting.
- Use a mechanical peeler when possible.
- Cut or dice downward—never toward the hand.
- Store knives and all cutting tools in racks, with blades protected, not loose in a drawer.
- Use standard institution-size can openers.
- Cut entire top from can; leave no jagged edges.
- Discard sharp-edged cans and pans, broken, cracked and chipped utensils and dishes.

Burns

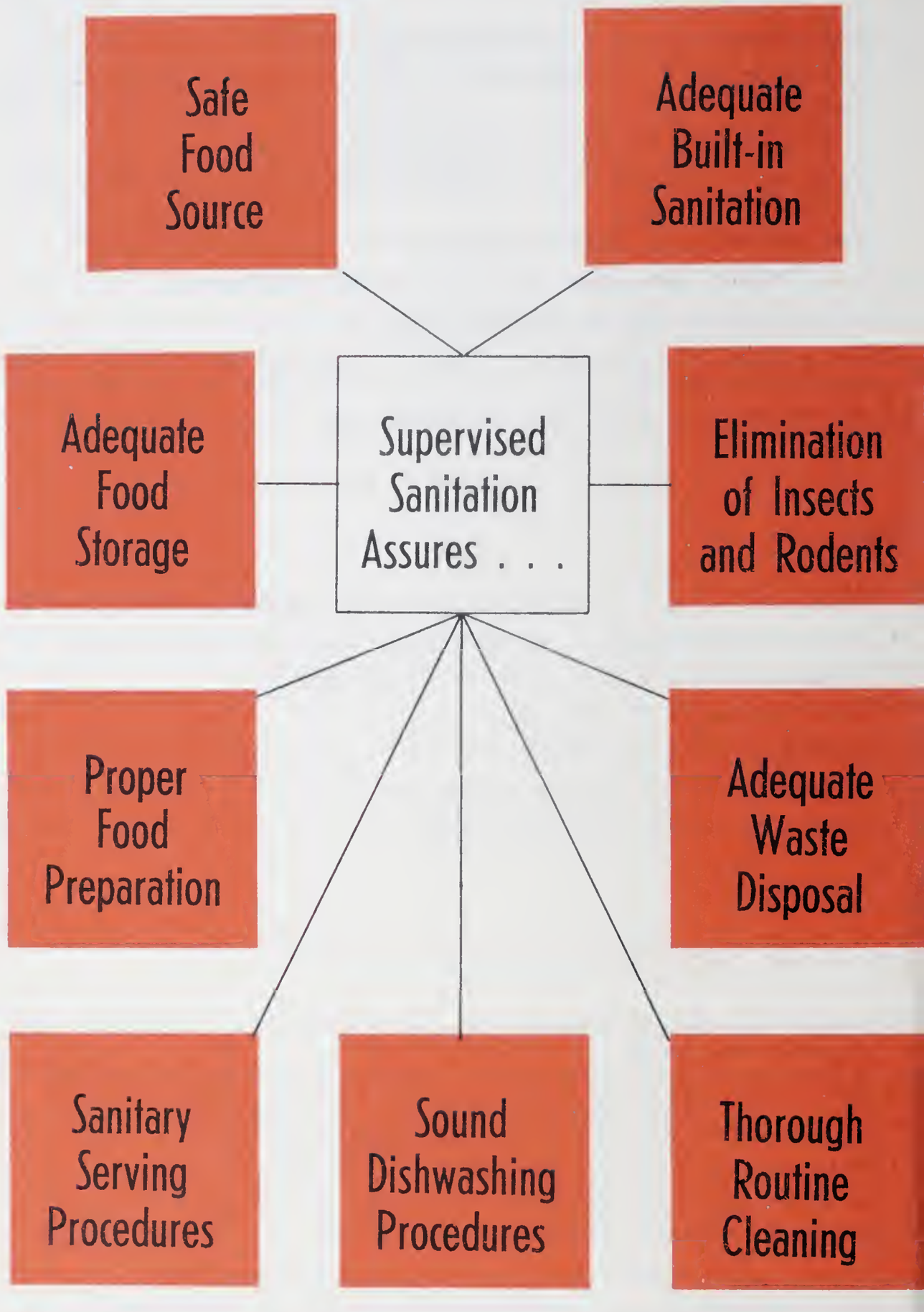
- Allow cooking equipment to cool before cleaning.
- Lift covers from steaming pots in such a way that steam will not scald you.
- Light match for gas burners before turning on gas.
- Have space available to place pots and pans before removing them from range.
- Use potholders or mitts (preferably) for handling hot utensils.
- Keep boiling, splattering and splashing to a minimum.
- Use a long-handled spoon for stirring.
- Use a puller or other tool to assist in removing pans placed in the rear of the oven.
- Do not fill stock pots or other pans too full.

Falls

- Place cans or cardboard cover over exposed electrical outlets on floor.
- Wipe up spilled water, food and grease from floor immediately.
- Replace brooms, mops, and boxes after each use.
- Use a stepladder for climbing.
- Keep floor and steps repaired.
- Keep traffic lanes free of hazards.
- Wear comfortable, low heeled shoes.

THER SAFETY SUGGESTIONS

- Follow manufacturer's instructions in care and use of mechanical and electrical equipment.
- Seek help in lifting or moving heavy containers, boxes, and bags.
- Be sure hands are dry before plugging in electrical equipment.
- Make sure all electrical equipment is grounded.
- Check to make sure electricity and/or gas are off when not in use.
- Place containers or boxes firmly on shelves.
- Do not use food from cans, jars, or dishes that are broken.
- Lift objects correctly with the back straight and knees bent.
- Keep cleaning supplies separated from food supplies.
- Be sure that adequate lighting is provided in all areas.


Safe Food Source
Adequate Built-in Sanitation
Adequate Food Storage
Supervised Sanitation Assures . . .
Elimination of Insects and Rodents
Proper Food Preparation
Adequate Waste Disposal
Sanitary Serving Procedures
Sound Dishwashing Procedures
Thorough Routine Cleaning

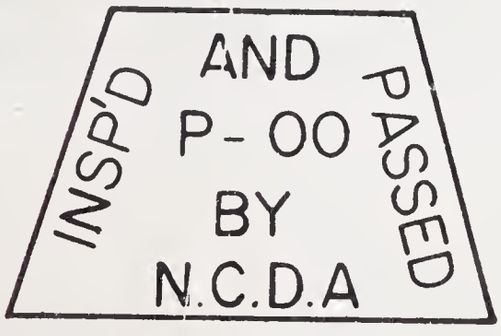
III FOODHANDLING AND SANITATION PRACTICES

FOOD PURCHASING AND RECEIVING

It is a mistake to assume that foods from all sources are safe. Unless good sanitation practices are followed, foods may become contaminated at many points during production, processing, storage and transportation. Quite often, groups of people are made sick by food contaminated at the source. Therefore, it is important to obtain food supplies from reliable sources, and to make sure that they are delivered in good condition in undamaged containers or packages. Some food items are specially processed and supervised for health protection reasons.

GUIDELINES FOR OBTAINING THE SAFEST FOODS POSSIBLE

- Always purchase foods from reliable, approved sources.
- Buy only Grade A pasteurized milk for drinking purposes.
- Buy only inspected meats and poultry (Look for the USDA or NCDA "Inspected and Passed" labels).



- Buy only commercially-processed canned foods.
- Frozen foods that feel soft or are completely thawed or appear to be spoiled should not be accepted.
- Buy shucked shellfish only in containers marked with a State abbreviation and permit number.
- Inspect deliveries for evidence of insect infestation or rodent contamination.

FOOD STORAGE

Storing food properly is very important. Improper storage contributes to the possibility of food spoilage.

GUIDELINES FOR FOOD STORAGE

Refrigerated storage

- The temperature should never exceed 45° F.
- Keep a thermometer in all refrigerators and check the temperature daily.
- Refrigerate all perishables immediately after receiving them.
- In order to allow the circulation of air and provide for rapid cooling—

  Use only slatted, slotted or wire shelving.

  Allow space between items.

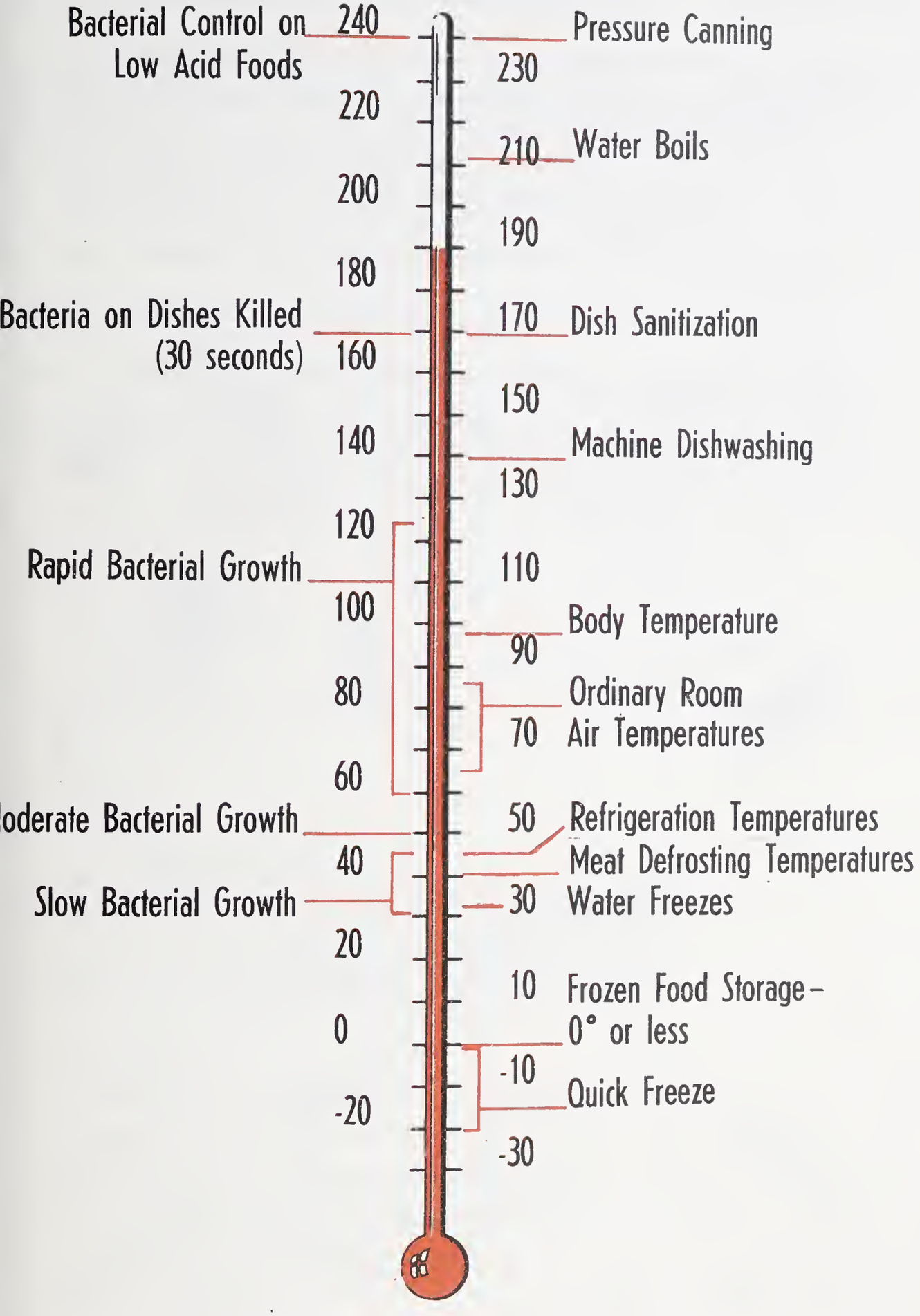
  Do not store foods in paper boxes. (Paper is a good insulating material and will not allow quick cooling.)

  Never line refrigerator shelves with paper or other material.

  Foods such as ground beef or dressing, etc. should be stored in shallow pans so that the food is not over 4" deep.
- Inspect refrigerator often; discard items that seem spoiled or unusable.
- Keep shelves clean, and put all food in proper containers before placing on shelves.
- Cover all foods before storing.
- Use refrigerated foods on a first-in, first-out basis.
- Plan food removal to reduce the number of times the door is opened.

Frozen Storage

- The freezer temperature should never exceed 0° F.
- Keep a thermometer in the freezer and check the temperature frequently.
- Store frozen foods in the freezer in the original shipping containers.
- If small quantities of leftovers are to be frozen, chill promptly and thoroughly; package in moisture-proof, vapor-proof material such as polyethylene freezer bags or heavy freezer aluminum foil.
- Use frozen foods on a first-in, first-out basis.


Bacterial Control on Low Acid Foods
240
Pressure Canning
230
220
210
Water Boils
200
190
180
Bacteria on Dishes Killed (30 seconds)
170
Dish Sanitization
160
150
140
Machine Dishwashing
130
120
Rapid Bacterial Growth
110
100
Body Temperature
90
80
Ordinary Room
70
Air Temperatures
60
Moderate Bacterial Growth
50
Refrigeration Temperatures
40
Meat Defrosting Temperatures
Slow Bacterial Growth
30
Water Freezes
20
10
Frozen Food Storage – 0° or less
0
-10
Quick Freeze
-20
-30

Dry Storage

- Store items in clean, cool, dry, well-ventilated storerooms.
- Shelving should be slatted and placed at least 1" from the wall. (Adjustable metal shelving is convenient.)
- The lowest shelf should not be less than 15" from the floor.
- The dry storage area temperature should range between 50-70° F. Keep a thermometer in this area and check it frequently.
- All foods should be stored away from the walls, dripping pipes and off the floor.
- Report any damaged USDA commodities to your superintendent promptly.
- Items that cannot be stored on shelves should be stored on easily movable dollies or skids.
- Store opened staple items such as flour, corn meal, rice, etc. in rust-proof, corrosion-resistant cans with tight fitting lids.
- Use foods on a first-in, first-out basis.

FOOD EXAMINATION AND PREPARATION

To assure that foods are not contaminated *before* they are prepared, it is necessary to *examine* all raw, packaged and canned foods for signs of contamination. Only if the foods pass careful inspection should they be used.

GUIDELINES FOR EXAMINATION OF RAW, PACKAGED, AND CANNED FOODS

- Do not use canned goods that have—
  Swelling at tops or bottoms of cans
  Dents along side seams
  Off-odors
  Foam or milkiness of juice
- Do not use meats that have—
  Off-odors
  Slimy surfaces (Beef usually spoils first on the surface. Pork spoils first at meeting point of bone and flesh. To test for spoiled pork, use a pointed knife to reach the interior of the meat. An off-odor on the knife means spoilage.)
- Discard foods that appear moldy, cloudy, or have an off-odor.

DON'T TASTE IT—THROW IT OUT!

GUIDELINES FOR FOOD PREPARATION

- Wash all poultry and fresh vegetables and fruits thoroughly before cooking or serving raw.
- Do not place cooked meats on the same surfaces on which raw meats have been prepared unless these surfaces have been thoroughly cleaned and sanitized. Separate cutting boards should be provided for raw and cooked meat.
- Refrigerate meats, creamed dishes, custards, and salads if they are to be held an hour or more before service.
- Thaw all frozen foods in the refrigerator. Frozen foods once thawed should not be refrozen.
- Cook all pork products until thoroughly done. No pink color should remain.
- Use dried whole egg only in items that are thoroughly cooked (to an internal temperature of at least 165°F.), such as baked products.
- Leftover foods should not be held over 36 hours.
- Recook leftovers before serving.
- If leftover food is discolored and has an off-odor, discard it.

DO NOT PREPARE ANY FOODS TOO FAR IN ADVANCE

FOOD SERVING

Foods which have been properly examined and prepared so as to minimize contamination may still become contaminated on the serving line, unless sanitary practices are maintained at this stage.

GUIDELINES FOR FOOD SERVING

- Food should be well protected before and during the serving period from dust, flies, sneezing and/or coughing.
- Cold foods should remain under refrigeration until the serving period begins.
- Milk should be kept under refrigeration during the entire serving period. *DO NOT SET IT OUT ON THE COUNTER BEFORE YOU BEGIN SERVING.*

KEEP HOT FOODS HOT.

KEEP COLD FOODS COLD.

- The hot food section of the serving counter should not be used for heating food. Its purpose is to keep hot foods hot. Check temperature of hot food in pans frequently—140°F. should be maintained.
- Napkin, straw, and silver dispensers should be available and used.
- Keep food covered on serving counter just before serving and between serving periods.
- Serve plates as students pass through the line—*NOT BEFORE.*
- Keep a clean, damp towel available to wipe up spills.
- Keep counter space free from crumbs, spills, etc. during the entire serving period.
- Use the proper tools for serving, such as tongs, scoops, spatulas, spoons. *NEVER TOUCH FOOD WITH THE FINGERS OR GLOVES IN SERVING.*
- Serve items such as butter, jam, jellies, etc. in individual containers.

DISHWASHING

One of the best investments a food service manager can make is in the training of personnel in good dishwashing procedures. This section is designed to help you accomplish that objective.

Utensils are washed for two reasons:

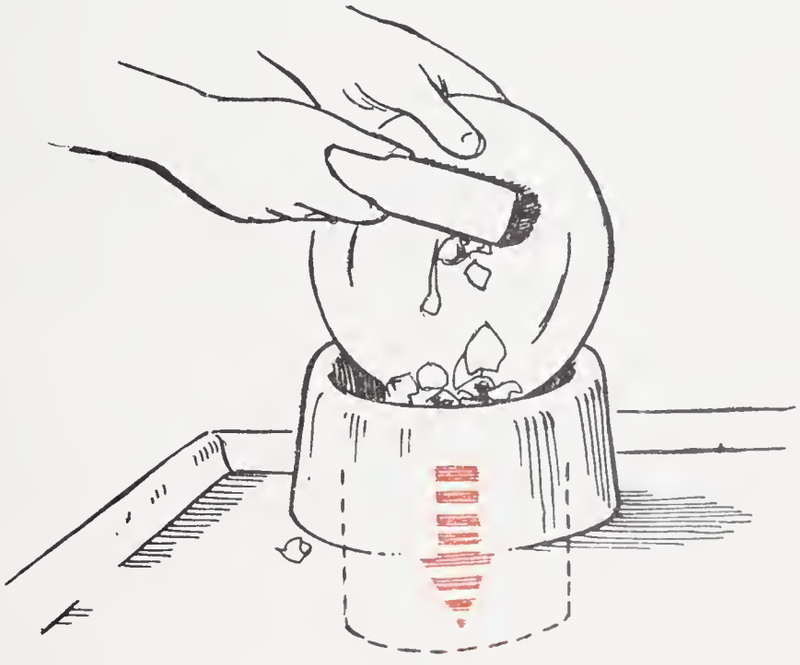
- To get them clean
  Everyone wants clean dishes. Appetites are certainly not sharpened by improperly cleaned dishes. Furthermore, clean pots and pans preserve good food flavors. The best quality foods can be ruined by off-flavors from unclean cooking utensils. Only *clean* dishes can be sanitized effectively.
- To sanitize them
  Germs are killed by keeping the utensils at a high temperature for a sufficient time.

OUTLINE OF PROPER DISHWASHING PROCEDURES

Preparing utensils for washing

Before utensils can be washed, whether by hand or by machine, there are several steps that must be taken. Soiled utensils should be brought to a soiled dish table of adequate size, where the following steps should be taken:

- Separate silverware and dishware and stack trays, etc.
- Scrape food particles from dishes.
- Soak silverware in mild detergent solution.
- Stack utensils.



Manual Dishwashing

Preliminary check: Before you begin washing, be sure that—

- The required amount of detergent has been added to the first compartment.
- The temperature of the water in the first compartment is between 110-120°F.
- The temperature of the water in the third compartment is over 170°F. *NOTE: A booster heater is required to maintain the temperature of the water at 170°F or higher, and a thermometer must be on hand to check this temperature. In case of failure of the booster, there are methods for adequately sanitizing utensils in the third vat using chemicals. In event of such emergency, call the sanitarian and request his assistance in setting up an adequate chemical procedure.*

Washing—first compartment

- Thoroughly wash utensils in water between 110-120°F containing a good quality detergent.
- Use a good quality brush, dish mop, or sponge in washing. *NOTE: Brush, mop or sponge must be kept clean and replaced when badly worn.*
- Change the wash water when it gets dirty.

Draining—drainboard and basket

- Remove the dishes from the first compartment as they are washed and place them in the dish basket on soiled drainboard.
- Place washed silverware in a silver basket with handles up.

Rinsing—second compartment

- Remove the dishrack from the drainboard and place it in the middle or rinse vat containing clean hot water between 120-140°F.
- Change water often to eliminate any carry-over of detergent to the sanitizing compartment.

Sanitizing—third compartment

- Immerse the dish rack in hot water that is between 170-180°F.
- Check the water temperature with the thermometer.
- Soak utensils in this hot water for at least one minute.

Air-Drying—clean dish table

- Remove utensils from third vat and allow them to air-dry on clean dish table. *Note: Never use dish towels to dry utensils.*

Machine Dishwashing

Machine Dishwashing

Preliminary check

The dishwashing machine is an intricate piece of equipment and should be properly checked out *before each dishwashing session.* Ask yourself the following questions:

- Do you understand the manufacturer's instructions for operating this machine?
- Has the machine been cleaned recently?
  NOTE: All dishwashing machines should be cleaned after each meal. Spray arms, crumb strainers, baffles, etc. should be cleaned and left on the drainboard. Dishwasher doors should be left open.
- Does the thermometer on the wash water tank indicate that the wash water is between 140° and 160°F? (or as written on the data plate)
- After a trial run (with an empty rack), does the thermometer on the final rinse indicate that the water is between 180° and 190°F?
  NOTE: It is just as bad to have the water too hot on the final rinse as it is to have it too cold.
- Does the water pressure gauge indicate the water pressure is between 15 and 25 pounds per square inch?
- Was the wash tank drained and cleaned after the last meal?
  NOTE: Is the proper detergent and dispenser being used?
  The detergent requirements vary from location to location. The detergent manufacturer's representative should be asked to recommend the proper detergent and dispenser.

Pre-rinsing

- All utensils should be flushed over a drain or waste disposal. This is very important because it will keep wash water clean, thus preventing the clogging of strainers, scrap trays and nozzles or slots of spray arms. Less contamination will be entering the wash tank, less detergent will be required, and washing will be more effective.

Racking

- Rack the dishes carefully so that every part of each dish will be fully exposed to the wash and rinse sprays. Overcrowding of dishes in racks prevents effective washing and sanitizing and is one of the most frequent violations of recommended procedures.

Washing

- Put the rack in the machine and operate the machine according to the directions provided by the manufacturer. Check the wash water temperature (140° to 160°F or as written on the data plate) and the rinse water temperature (180° to 190°F)
- Remove the rack and allow to air-dry on the clean dish table before stacking.

Washing pots, pans and other multi-use utensils
Separate facilities should be provided for this purpose.

Preparation

- Soiled pots, pans and other multi-use utensils should be brought to soiled dish drainboard of adequate size.
- Scrape off as much residue as possible from the utensil.

Washing—first compartment

- Place utensils in first compartment, containing a good quality detergent, for a thorough soaking.
- Remove pots one at a time, and scrub clean with brush or sponge. NOTE: Water should be maintained at between 110° and 120°F in first and second compartments.

Rinsing—second compartment

- Place utensils in compartment and rinse thoroughly.

Sanitizing—third compartment

- Immerse the utensils in hot water (between 170° and 180°F) in third compartment for one minute. Some older schools will have only a two-compartment sink and will have to omit this step.

Air-Drying—drainboard

- Remove from third compartment (tongs are recommended), place upside down on clean drainboard or on pot rack and allow to air-dry.

Storing Dishes and Other Utensils

- Store dishes and utensils in an enclosed, clean, dry place where they are protected from dust and vermin.
- In order to avoid unnecessary handling, covered dish storage carts are recommended.

REFUSE DISPOSAL

Refuse is composed of three classes of materials:

- **Garbage**—Discarded food and food scraps, including grease, and containers such as tin cans, meat wrappers and other items that contain food particles and juices.
- **Rubbish**—such items as paper, wood scrap, boxes or other materials commonly known as "trash".
- **Rubble**—ashes, bricks, stone, or other noncombustible materials.

Garbage is food for flies, cockroaches, ants, rats and mice. It should be placed in containers which exclude these pests. Flies breed in dirty garbage cans.

GUIDELINES FOR HANDLING OF GARBAGE

- Standard 20-30 gallon galvanized garbage can should be used for storing garbage. Fifty-five gallon drums are unsatisfactory.
- Plastic liners for garbage cans are desirable.
- The garbage can should be watertight and fitted with a tight lid.
- Garbage cans should be kept covered except when in use.
- Approved facilities for washing cans should be provided.
- The garbage can should be cleaned and dried each day by washing in hot suds, rinsing in hot water and inverting on a rack for draining.
- A garbage can rack should be provided to keep the cans at least 10 inches above ground or floor level to facilitate cleaning of premises and cans.
- If city collection of garbage is not provided, a contract collector should be employed to remove garbage each day.
- Garbage should not be burned on school premises.
- A sufficient number of cans should be provided to contain one day's accumulated garbage.
- All garbage and rubbish from the kitchen and dining room shall be kept separate from the rubbish from the rest of the school (used milk cartons and napkins are to be treated as garbage.)

PEST CONTROL

Insects (such as flies, cockroaches, and ants) and rodents (rats and mice) should not be tolerated in any school food service department. They walk and feed on all kinds of filth and in turn spread this filth, which clings to their feet and bodies, over food, utensils and equipment.

Good housekeeping or sanitation cannot be replaced by pesticides, and no pest control operator can achieve the desired results unless the management cooperates by making food and shelter *unavailable* to these pests.

GUIDELINES FOR PEST CONTROL

- Keep the inside and outside of the building clean. Clean up all spilled foods immediately.
- Keep walls, floors and ceilings clean, in good repair (free of cracks), and well lighted (no dark corners).
- Place all equipment at a cleanable distance away from the wall or sealed to the wall.
- Keep screens on all openings in good repair and fly-tight.
- Seal all openings around electrical conduits, drain pipes, vents, and flues. Ratproof the kitchen.
- Dispose of all unused materials and equipment.
- Dispose of all garbage and trash each day in an approved manner.
- In order to reduce the possibility of introducing roaches and mice into the storeroom, it may be helpful if all cartons and crates are unpacked and inspected in an outside area.
- Pyrethrum aerosol spray dispensers should be made available so that the food service employee may kill the insects that occasionally wander in from outside.
- Insects, especially the housefly, tend to build up a resistance to insecticides if the insecticide is used continuously. The housefly has become resistant to so many of the insecticides that can be used in a kitchen or dining room that other methods of control must be used. *Good sanitation practice is the best method of reducing the fly population around food establishments. This can only be accomplished by keeping flies away from food. (Screen doors, keep food covered).*

Note on Use of Pesticides

Many pesticides are very dangerous and should only be used by specially-trained personnel. In order to avoid the hazards of these poisons and to insure that the pesticide is properly used, a responsible licensed pest control operator should be employed. Rats and mice, and insects such as cockroaches and ants, can be controlled with chemicals which the pest control operator has at his disposal and is trained to use.

CLEANING SCHEDULE

Effective housekeeping depends upon developing a definite cleaning schedule, with all personnel assigned specific duties. This is necessary to insure proper and adequate cleaning of the entire school food service department.

DAILY DUTIES

include cleaning all dishes, utensils, and equipment used that day:

- Dishes, silverware, cooking utensils, and food containers
- Sinks, work tables, serving counters, and can openers
- Mechanical equipment—mixer, steamer, dishwashing machine, vegetable peeler and slicer. Dismantle these and clean each part. Follow the manufacturer's instructions.
- Spills that occur on the range, in the oven, and in the refrigerator
- Exteriors of range, oven, and refrigerator
- Dining room tables and chairs
- Windowsills
- Garbage cans and can washing area
- Mops (wash and air-dry)
- Restrooms
- Floors

WEEKLY DUTIES

include thorough cleaning of the following equipment and areas:

- Ranges
- Ovens
- Storage cabinets
- Refrigerators
- Storerooms
- Restrooms

OTHER PERIODIC DUTIES

- Clean range hoods, filters and windows once a month, or more often if necessary.
- Defrost freezer whenever ¼ inch of frost accumulates.

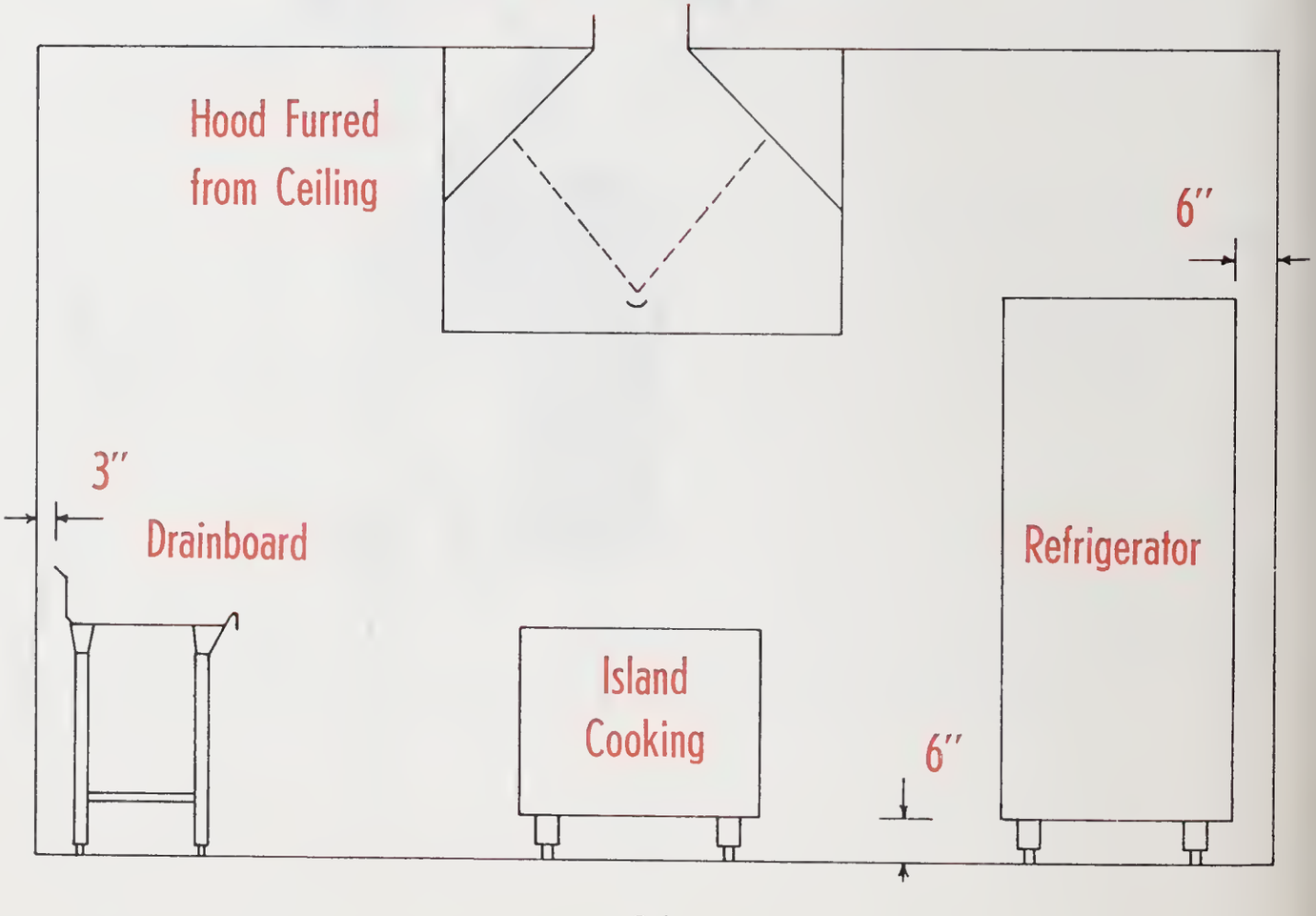
OUTLINES FOR BUILT-IN SANITATION

Experience has taught that the more sanitation is built in, the easier it is to clean and maintain a well-ordered kitchen. In order to promote the sanitary design and installation of food service equipment, the National Sanitation Foundation has developed standards for many types of equipment.

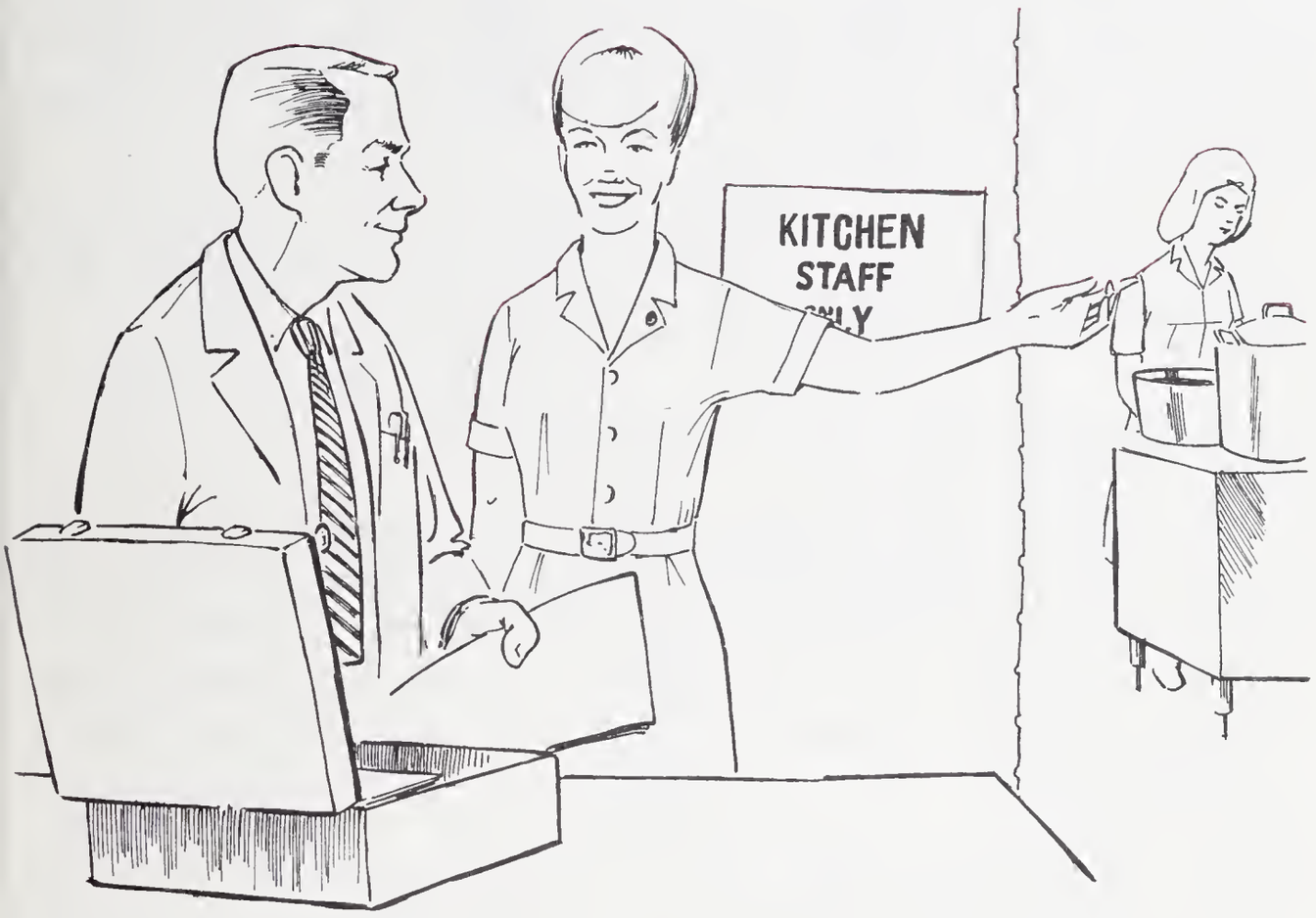
We can help provide better sanitation by promoting the following principles:

- Purchase only equipment that bears the National Sanitation Foundation (NSF) Seal of Approval.
- All sinks, drainboards, food preparation tables and serving counters and similar items used for the preparation of food and/or the washing of utensils shall be constructed of stainless steel or equal in accordance with National Sanitation Foundation Standards.
- Install equipment so that it is accessible for cleaning as recommended in NSF Standards.
- Contact the sanitarian regarding proposed new and renovated kitchen facilities.

BUILT-IN SANITATION DIAGRAM



IV THE ROLE OF THE SANITARIAN



The sanitarian has two important responsibilities: promoting good standards of environmental sanitation throughout the community, and enforcing certain laws and regulations through inspection work.

ADVISORY SERVICES

In his advisory capacity, he can often assist food service personnel in finding better ways to meet today's standards of cleanliness and sanitation.

The sanitarian can give valuable advice regarding the selection and location of food service equipment and the planning of alterations in the food service operation. He should be invited to participate early in the planning stage.

When school officials plan for major improvements that are to be made over a period of years, the sanitarian can aid by developing a priority schedule for those improvements concerning sanitation.

His experience frequently enables him to make timely suggestions when standard operating routines are being established for such procedures as dishwashing, general cleaning, and the handling of trash and garbage.

The services of the district sanitarian, who is able to give expert assistance and can call upon highly trained engineers and other specialists, are available to the sanitarian.

INSPECTION AND SANITATION RATING

It is also his duty to make regular inspections of school food service operations and to post a sanitation grade card. The grade card posted depends upon the conditions found and noted on the inspection form: Grade A if high standards are being maintained; Grade B or Grade C if conditions justify. Food Service establishments scoring below Grade C are not permitted to continue operations until necessary corrections are made. In any event, the sanitation grade depends on the type of job the manager is doing as well as the facilities and equipment that have been provided.

Grade A sanitation standards should be maintained at all times, and most sanitarians are proud of "their" school food service.

If an unusual number of children become sick, school officials should immediately contact the local sanitarian or the health department.

When you have any problems or questions regarding sanitation, the sanitarian will be glad to assist and advise. This assistance and advice are as near as the telephone.

SANITATION GRADE

A

This is to Certify *that this establishment was inspected on* _____ 19____ *and received a sanitary rating of* _____ %.
NORTH CAROLINA STATE BOARD OF HEALTH

Jacob Koomen M.D.
ACTING STATE HEALTH DIRECTOR

By_____

FORM 440 A

SANITATION GRADE

B

This is to Certify *that this establishment was inspected on* _____ 19____ *and received a sanitary rating of* _____ %.
NORTH CAROLINA STATE BOARD OF HEALTH

Jacob Koomen M.D.
ACTING STATE HEALTH DIRECTOR

By_____

FORM 440B

SANITATION GRADE

C

This is to Certify *that this establishment was inspected on* _____ 19____ *and received a sanitary rating of* _____ %.
NORTH CAROLINA STATE BOARD OF HEALTH

Jacob Koomen M.D.
ACTING STATE HEALTH DIRECTOR

By_____

FORM 440C

Form No. 451
(Rev. 12/64)

NORTH CAROLINA STATE BOARD OF HEALTH
INSPECTION FORM FOR
RESTAURANTS AND FOODHANDLING ESTABLISHMENTS

_____ PERMIT _____ SCORE _____
County or City Health Department

_____
Name of Restaurant or Establishment Manager Address

Remarks: _____

_____

1. FLOORS: Tightly constructed and in good repair 10#, clean and no ragged linoleum, etc., nor obstacles to cleaning 20#; area sufficient for all operations 10* ..... 40 _____
2. WALLS AND CEILINGS: Smooth material of tight construction and in good repair 10#, painted 10*, clean and free from excessive decorations 20# ..... 40 _____
3. DOORS AND WINDOWS: Outside openings with effective screens and self-closing doors or effective fly-repellent fans 40# ..... 40 _____
4. LIGHTING: Illumination adequate 10*, sufficient outlets properly located 10* ..... 20 _____
5. VENTILATION: Ventilation adequate 10*, effective exhaust system if needed, clean and in good repair 20# ..... 30 _____
6. TOILET FACILITIES: Approved facilities and approved disposal 90* (facilities adequate, meet Labor rules 10*, comply with Building Code 5*, size 5*, patrons' toilets not entered through kitchen 10*, doors self-closing 5*, ventilation, illumination 10*, signs 5*, floors, walls, and ceilings, smooth, painted, clean, and in good repair 20#, fixtures clean and in good repair 20#) (Approved privies where physically impossible to install water-carried sewerage facilities 40#) ..... 90 _____
7. WATER SUPPLY: Municipal supply 40*, private supply (construction and operation approved according to Code, adequate for all requirements) 40* ..... 40 _____
8. DRINKING WATER FACILITIES: Cooler, fountain or dispenser of sanitary design 20* ..... 20 _____
9. STORAGE AND HANDLING OF ICE: Ice machines, storage boxes, grinders, pans and containers clean 10*, good repair 5*, ice dispensed with scoops, block ice washed 10* ..... 25 _____
10. LAVATORY FACILITIES: Adequate, convenient to kitchen and toilets and clean 10#, warm water with combination supply faucet 5*, good repair 5*, soap 5*, individual towels 10*, room or area clean and free from storage 10*, ventilation and illumination 5* ..... 50 _____
11. CONSTRUCTION OF UTENSILS AND EQUIPMENT: Easily cleanable construction with no breaks, chipped

construction with adequate size drainboards attached, splash-back protection, hot and cold water piped to each vat; separate facilities for glass washing, if needed; dishwashing machine, if used, clean and provided with pre-wash facilities, and equipped with thermometers on wash and rinse lines; adequate hot water heating facilities 40# ..... 150 _____

(b) BACTERICIDAL TREATMENT OF EATING AND DRINKING UTENSILS: Approved bactericidal treatment after cleaning; immersed 1 minute in water at 170°F., or other approved process, thermometer provided; if machines are used, equipped and operated according to NSF standards 20*, adequate booster heaters 20* ..... 40 _____

14. STORAGE AND HANDLING OF UTENSILS AND EQUIPMENT: No handling of contact surfaces, stored in clean place protected from flies, splash, dust, etc., inverted or covered when practicable 20#; single-service cups, plates, straws, trays, spoons, etc., and ice cream dippers properly stored and handled 10* ..... 30 _____

15. DISPOSAL OF WASTES: Liquid wastes disposed of in an approved manner; garbage in standard cans with tight lids, removed frequently; facilities for cleaning, cans kept clean; other trash and rubbish in suitable receptacles 50# ..... 50 _____

16. PROTECTION OF FOOD: (a) Perishable food stored below 50°F., or held above 143°F., as required 30#; (b) All food clean, wholesome, free from adulteration and spoilage; highly perishable items (see Regulations) from approved sources 30#; (c) Shellfish from approved sources, properly stored and handled (record permit Nos.) 15*; (d) Food once served to guest not re-served 10*; (e) Food kept under cover, not stored directly in contact with ice, shelves, etc., stored above floor, all food handled in a sanitary manner, no unnecessary handling of cooked food with hands in serving, no food served to public in the kitchen, no animals, fowls, rodents, roaches, etc., flies under control, no open displays, floor cleaning only after closing or between meals by dustless methods 70 ..... 155 _____

17. MILK AND MILK PRODUCTS: Grade "A" Pasteurized Milk Products 30, (milk served in original containers, or from approved bulk dispenser properly located and labeled (see Regulations. Check dispenser can seals) 20*, cream handled properly 10*) ..... 30 _____

18. REQUIREMENTS FOR EMPLOYEES: Clean coats and caps, or special dress, hands clean and good food-handling practices used 30#; Health Certificates on file, renewed annually 10* ..... 40 _____

19. PREMISES: MISCELLANEOUS: Premises kept neat and clean 30#; soiled linens, coats, aprons, etc., kept in containers 5*; restaurant not used for domestic purposes 5* ..... 40 _____

TOTAL 1000

DATE _____ SIGNED _____ AGENT

N. C. STATE BOARD OF HEALTH

Form No. 467
(Revised 10/52)

NORTH CAROLINA STATE BOARD OF HEALTH
SCHOOL SANITATION INSPECTION FORM

_____ _____ SCORE _____
County or City Health Department Address

_____ _____ _____
Name of School Address Principal

White _____ Colored _____ High _____ Elementary _____ Enrollment-Total _____ Girls ____ Boys _____

REMARKS _____

_____

1. WATER SUPPLY: Municipal or approved private supply under pressure 100*; adequate supply 25*; adequate pressure 25*; (approved well and hand pump 50*) ..... 150 _____

2. DRINKING FOUNTAINS: Adequate number (1 for each 75 pupils) in good repair 30*; angle jet type with guard 30#; pressure properly regulated 30#..... 90 _____

3. SEWAGE AND WASTE DISPOSAL: Municipal sewerage system or approved private facilities adequate and properly maintained 150#; (approved privies in good repair, 1 for each 50 pupils 50#).. 150 _____

4. TOILET ROOMS: Walls and ceilings clean and in good repair 30#; fixtures clean and in good repair 30#; adequate light and ventilation 10#; adequate number of fixtures (urinals 1 for each 30 boys; water closets for elementary schools, 1 for each 30 girls, and 1 for each 60 boys; water closets for high schools, 1 for each 45 girls and 1 for each 90 boys) 20*; floors smooth, impervious, sloped to drain, clean, and in good repair 30#; hose bibb 10*; (privies clean and properly maintained 50#)..... 130 _____

5. HANDWASHING FACILITIES: Adequate number (1 for each 50 pupils) 30*; fixtures clean and in good repair 30#; soap and individual towels 20#..... 80 _____

10%; windows and transoms clean 20%..... 40 _____

9. VENTILATION: Windows in good repair 20%; natural ventilation apparently adequate 20%..... 40 _____

10. GARBAGE AND REFUSE DISPOSAL: Properly stored in clean metal cans or other approved containers with tight fitting lids 30%; proper collection and disposal 30%..... 60 _____

11. DRESSING ROOMS AND SHOWERS: Smooth impervious construction, clean and in good repair 20%; adequate ventilation 10%; hot and cold running water 10*; soap and towels 10*; adequate number of showers (minimum 6) 10*; lockers clean and free of odor 10%; toilets and lavatories provided 10*..... 80 _____

12. OUTSIDE SURROUNDINGS: Generally clean and well kept 30%; well drained 20%; no rat harborages, fly or mosquito breeding places 20%..... 70 _____

TOTAL 1000

School lunchroom Yes_____ No_____

School lunchroom grade_____ Date _____

DATE _____ SIGNED _____ Agent

N. C. STATE BOARD OF HEALTH

CHECK SHEET FOR SCHOOL FOOD SERVICE MANAGER AND PERSONNEL

Are Employees:

_____Properly dressed?

_____Free from colds?

_____Washing hands frequently?

_____Keeping nails free of polish, short and clean?

_____Keeping their hands away from the hair and face?

_____Keeping makeup simple?

_____Practicing sound personal health habits?

_____Handling eating utensils correctly?

_____Storing personal items in lockers or restroom?

Do We:

_____Use clean spoons for tasting?

_____Always keep hot food hot—cold food cold?

_____Thoroughly wash fresh fruits and vegetables before using?

_____Wash thoroughly before re-using any utensil that falls to the floor?

_____Store perishable foods promptly?

_____Keep all foods in the refrigerator covered?

_____Store all foods above the floor in the dry storage area?

_____Keep thermometers in the freezer, refrigerator and storeroom?

_____Check these temperatures daily?

_____Store food in the refrigerator to allow for proper air circulation?

_____Purchase all foods from safe sources?

_____Obey the rule, "Never refreeze products once they have thawed"?

_____Discard food products that show signs of spoilage?

_____Cool leftovers quickly and store in shallow pans?

_____Refrigerate cooked foods and salads that must be held an hour or more before serving?

_____Thaw all frozen foods in the refrigerator?

_____Thoroughly cook all pork products?

_____Thoroughly heat cooked leftovers before re-serving?

_____Inspect all frozen products for signs of thawing?

_____Avoid use of the hands in food preparation?

_____Thoroughly clean work surfaces and utensils after preparing fresh or frozen meats?

_____Keep the serving counter clean and orderly during entire serving period?

_____Use the proper tools for serving?

_____Serve plates as students pass through the line?

_____Protect food from dust, sneezing and coughing?

_____Store dishes, silver and other utensils properly?

Do Employees:

_____Use correct dishwashing procedures?

_____Follow a definite cleaning schedule?

_____Have sufficient cleaning tools and equipment?

_____Keep garbage cans covered?

Do You:

_____Routinely check all cleaning operations?

_____Discard chipped or cracked utensils?

_____See that equipment is maintained and repaired as needed?

_____Instruct employees in the care, use and cleaning of equipment?

_____Report sanitary situations beyond your control to the proper officials?

_____Seek the assistance of your local sanitarian in questionable situations?

_____Check to see that kitchen is left clean and orderly each day?

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